DOCUMENT RESUME

ED 321 960 RC 017 695

AUTHOR	Goldsmith, Oliver Scott; And Others
TITLE	Alaska's Potential Tax Revenues. ISER Fiscal Policy Papers, No. 3, February 1990.
INSTITUTION	Alaska Univ., Anchorage. Inst. of Social and Economic Research.
SPONS AGENCY	ARCO Alaska, Anchorage.
PUB DATE	Feb 90
NOTE	18p.
PUB TYPE	Collected Works - Serials (022) -- Information Analyses (070)
JOURNAL CIT	ISER Fiscal Policy Papers; n3 Feb 1990
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Financial Problems; *Fiscal Capacity; *Income; *Local Government; Public Policy; *State Government; *Taxes; Tax Rates
IDENTIFIERS	*Alaska

ABSTRACT

During the 1980s Alaska's state and local governments spent two to three times more per capita than governments in other states but taxed individuals and businesses only about half as much. They were able to do this because high petroleum revenues paid most government expenses. Petroleum revenues began declining in the 1980s, and by the year 2000, will leave an estimated $1 billion gap in the state budget. If state and local governments taxed individuals and businesses at national average rates, they could cut this gap in half. This paper analyzes potential revenues for Alaska governments. It examines how much tax Alaska's state and local governments currently collect and estimates how much different tax collections would be if tax rates were at national averages. Taxes paid by individuals and businesses and by resource industries are separately examined. Income tax, property taxes, federal transfers to the state, state transfers to local governments, interest, general sales tax, resource taxes, and resource ownership revenues are discussed with a consideration of the effects of world oil prices and potential economic development. Five arguments against raising taxes are examined. This report contains 11 graphs. (SV)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED321960

ISER FISCAL POLICY PAPERS

No. 3, February 1990

Alaska's Potential Tax Revenues

BEST COPY AVAILABLE

RC017695

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Tracey Bradford

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ISER
FISCAL POLICY PAPERS

No. 3, February 1990

Institute of Social and Economic Research — University of Alaska Anchorage

Alaska's Potential Tax Revenues

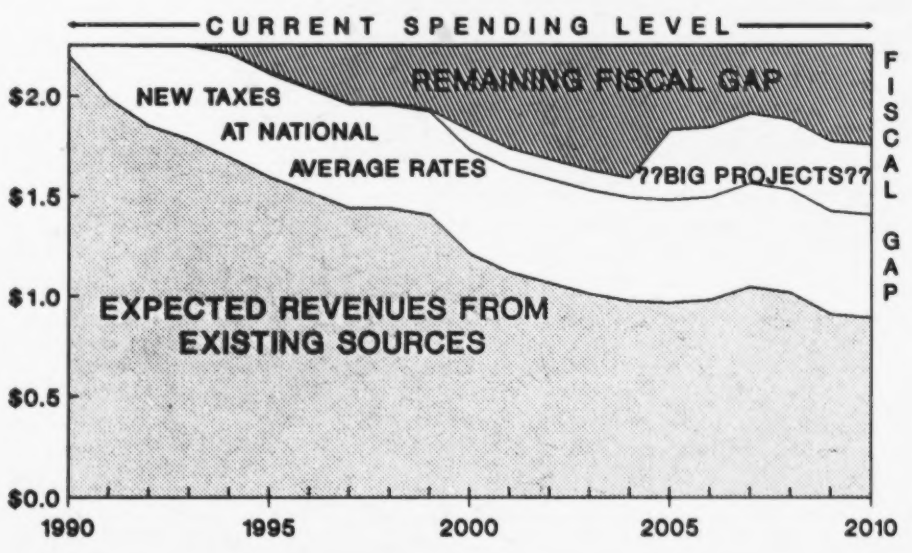
Spend more and tax less was the philosophy of Alaska's state and local governments in the 1980s. They spent two to three times more per capita than governments in other states, but taxed individuals and businesses only about half as much. They were able to do that because high petroleum revenues paid for most of state government and a lot of local government.

But in the 1990s we can expect to see them spending less and taxing Alaskans more. We estimate that Alaska's state and local governments could collect about $500 million more from the existing tax base, if they taxed individuals and businesses at national average rates.

The Alaska Legislature isn't likely to raise taxes this year, but interest in taxes is bound to grow in the 1990s, as declining production from the giant Prudhoe Bay field draws down state revenues. By 2000 falling petroleum revenues will leave a $1 billion gap in the state budget. (Figure 1.) Alaska's local governments will also feel the effects of the fiscal gap, because they rely heavily on the same source of money – dwindling state petroleum revenues.

Economic developments that are at best uncertain right now could, were they to occur, yield very substantial revenues by 2005. If the gas pipeline from the North Slope were built, and if oil were discovered and produced in the Arctic

Figure 1. Potential of New State and Local Revenues To Narrow Fiscal Gap
(In Billions of 1988 Dollars)



This is the third in a series of ISER Fiscal Policy Papers examining aspects of state government revenues and spending. We intend these papers to focus the attention of state officials and of Alaskans in general on the serious budget crisis we face, and on the necessity for dealing with it soon.

The authors are Oliver Scott Goldsmith, Matthew Berman, Lee Gorsuch, and Linda Leask. Alexandra Hill and M. L. Madden helped analyze the data. Teresa Hull prepared the graphics.

The ISER Fiscal Policy Papers series is financed by a grant from ARCO Alaska.

PC 017695

National Wildlife Refuge, together those developments could contribute in the neighborhood of $350 million a year (in 1988 dollars).

In 2000, if individuals and businesses were taxed at national average rates (rather than at current rates), those additional taxes would fill about half the projected fiscal gap. By 2005, if uncertain big developments were to occur, revenues from those developments and taxes at national average rates together could fill about 70 percent of the projected gap. (Figure 1.)

This paper analyzes potential revenues for Alaska governments, and is a complement to the spending analysis in Fiscal Policy Paper # 2. We hope policymakers will consider these analyses together as they decide how to balance spending cuts and revenue increases in the 1990s. Some Alaskans believe the state government should balance its budget just through spending cuts. But cutting $1 billion would reduce the state budget by 40 percent. It seems unlikely Alaskans would tolerate the drastic drop in services that would follow if the state cut its budget nearly in half.

To estimate potential revenues, we need a standard against which to measure Alaska tax efforts. We use *national average tax rates*: we examine how much tax Alaska's state and local governments currently collect, and estimate how much different tax collections would be if tax rates were at national averages. We're *not* estimating the maximum amount government could squeeze out of taxpayers. Nor are we suggesting that national averages are the appropriate tax rates for Alaska. Policymakers here will have to make decisions about tax rates in the light of specific Alaska circumstances. (The box on page 14 further describes how we estimate Alaska tax levels and U.S. averages.)

In our analysis we look separately at taxes paid by individuals and businesses and by resource industries. Individuals and businesses in Alaska carry perhaps the lightest state and local tax burden in the nation. Comparing taxes paid by resource industries in Alaska with national averages for resource industries is complicated by the difficulty of measuring the appropriate tax base. But we roughly estimate that Alaska's two biggest resource industries – petroleum and commercial fishing – pay just about the same rates in Alaska as they do nationwide. For petroleum that national average is about 12 percent of its *value added* (the petroleum industry contribution to the gross national product), and for commercial fishing in the neighborhood of 4 to 5 percent of that industry's value added. Alaska's mining and timber industries, however, appear to be taxed considerably below national averages.

These are rough estimates, intended to give readers an idea of the relative level of taxes on resource industries. How to measure the taxes paid by and the tax capacity of resource industries in Alaska has been and will continue to be bitterly debated. We're not suggesting that our method shows the appropriate level of taxation. Our analysis provides a method of comparing resource industries that is consistent with comparisons of individuals and businesses. It is not meant to serve as a substitute for a detailed analysis of the specific circumstances of each resource industry in the state.

Small changes in our estimates of the percent of value added each industry pays in taxes would make little overall difference to Alaska revenues, except for changes in the petroleum estimate. But as time goes on, changes in the petroleum estimate will make less difference to revenues. That is true because the Alaska petroleum tax base is shrinking and therefore reducing petroleum revenues.

Regardless of differences of opinion about the size of the resource tax base, one point remains clear: individuals and businesses in Alaska pay a lot less state and local tax than they do in other places, and governments here are going to look at individual and business taxes to help balance the budget in the 1990s.

Before we move into our analysis we'd like to emphasize one more point. Alaska is not only a

What Fiscal Gap ?

Many Alaskans don't believe the state faces a fiscal crisis. They note that current state revenue projections put annual revenues at or above $2.3 billion (the current level of spending) for the next five years. But those projections assume revenues will remain at that level because inflation will push up the price of oil. To be consistent, forecasters must also assume that inflation would likewise push up the cost of government. Using the state's assumptions about inflation in oil prices, we calculate that by 1995 the government would need almost $2.9 billion to maintain today's purchasing power. While no one has a crystal ball to predict future oil prices, even relatively optimistic forecasts suggest the state will confront major revenue shortages within a few years.

tax collector but also a resource owner. When Alaska became a state, the federal government recognized that it had a small tax base as compared with more industrialized states, so it granted Alaska ownership of 104 million acres and the resources on those lands. Part of Alaska's resource revenue therefore comes from taxes, and part—in the case of petroleum, a very substantial part—comes from royalties and other payments it collects as a resource owner. It's important to keep that distinction in mind when we talk about U.S. and Alaska tax rates. Whether Alaska collects a fair return on its ownership of resources is a separate issue from how its tax rates compare with those of other states.

The next section of this paper briefly describes state and local revenues since Alaska became a state, and the following section compares existing Alaska state and local tax levels with national averages. Then comes our analysis of potential new revenues. Finally, we look at some of the economic, political, and social issues that will make raising taxes difficult.

History of Revenues

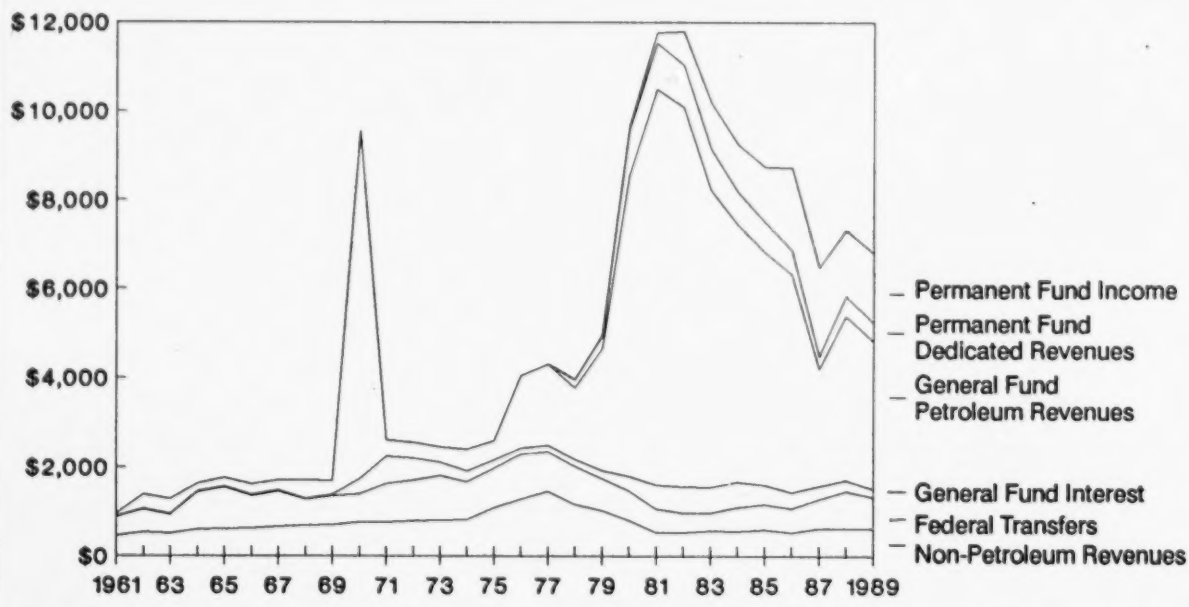
Figures 2 and 3 show historical per capita state and local revenues, in 1988 dollars. Putting all the figures in constant dollars per capita reveals the real changes over time in levels and sources of revenues, independent of changes in prices and population.

The two figures illustrate the growing importance of petroleum revenues to Alaska's state and local governments, and the volatility of those revenues.

Before the discovery and development of North Slope oil, federal tranfers made up close to half of the state's relatively modest revenues, and taxes and other charges paid by individuals and businesses made up most of the rest. In the past 15 years, petroleum revenues multiplied state income, but also made it subject to sudden shifts up and down. Petroleum revenues have been declining since the early 1980s, but by the end of the decade real per capita state revenues were still about seven times larger than they had been when Alaska became a state.

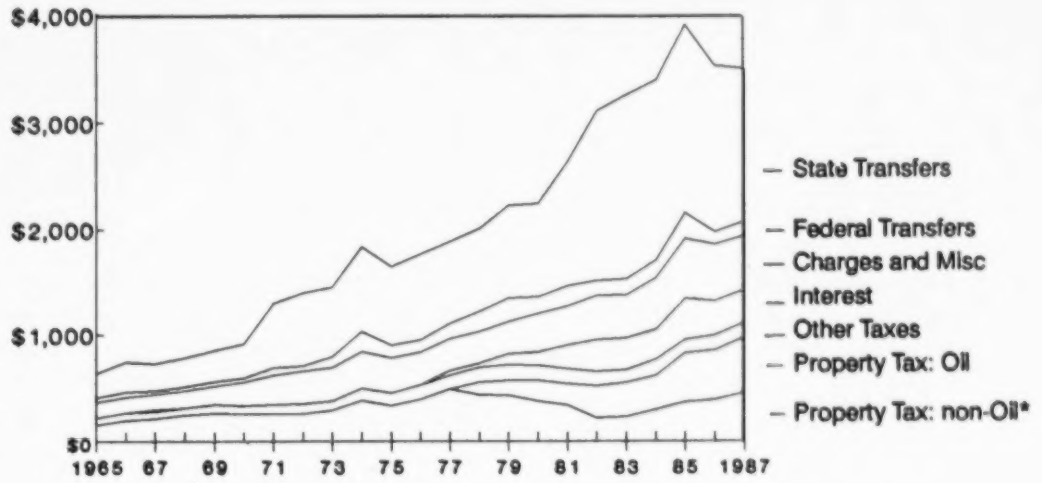
Local government revenues also grew dramatically over the past 15 years, with the biggest source of growth being state aid—which was fueled by petroleum revenues. Taxes on oil property also became a big source of income for the North Slope Borough and Valdez and a

Figure 2. Alaska State Revenues Per Capita
(In 1988 Dollars)



* Non-petroleum revenues include taxes and other charges paid by Alaska individuals, businesses, and resource industries other than petroleum.

Figure 3. Alaska Local Revenues Per Capita
(In 1988 Dollars)



* Including taxes on Cook Inlet petroleum prior to 1977.

smaller but still significant source for the Fairbanks North Star Borough and the Kenai Peninsula Borough. Local revenues began dropping with declining state aid in the late 1980s. (The most recent figures available for local revenues are from 1987; figures from the two most recent years would likely show further drops.) Still, as of 1987 real per capita local revenues were about four times larger than they had been in the mid-1960s. But because non-petroleum taxes fell as petroleum revenues rose, municipal budgets are very vulnerable because they now rely so much on non-sustainable revenues.

Tax Burdens: Alaskans and Other Americans

In this section we look at how state and local taxes Alaskans paid compare with what other Americans paid in 1967, 1977, and 1987. We picked those three years because they represent very different economic periods in Alaska: the early years of statehood, before North Slope oil discoveries; the economic boom time accompanying construction of the trans-Alaska oil pipeline; and the period of high petroleum revenues.

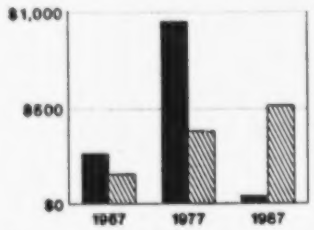
By comparing Alaska state and local taxes with taxes elsewhere we're not implying that national averages ought to be the model for Alaska. But these kinds of comparisons do give us a measure of relative tax burdens. We look first at comparative state taxes, then at comparative local taxes, and finally at combined Alaska state and local tax effort as compared with U.S. averages. Remember that we are talking only about state and local taxes. The other major taxes are of course federal taxes. Because the federal income tax is progressive—that is, it taxes higher incomes at higher rates—and Alaskans generally have high nominal incomes, Alaskans pay about 10 percent more federal income taxes than the national average. (However, that difference used to be much larger, when the federal tax structure was much more progressive than it is now.)

State Government Comparisons

Figure 4 compares taxes, federal transfers, and resource revenues collected by Alaska's state government and state governments nationwide on average in 1967, 1977, and 1987. The numbers are in 1988 dollars per capita—a comparison that adjusts for both price changes over time and population differences. The U.S. figures are also inflated by an Alaska cost-of-living adjustment; that adjustment puts the purchasing power of a dollar in Alaska and nationwide on par. (See box on page 6.)

Figure 4. State Revenue Per Capita
Alaska and U.S. Average
(In 1988 Dollars)

Income Tax [a]



	1967	1977	1987
Alaska	$266	$948	$39
US Average	$156	$383	$513
Ratio	1.70	2.48	0.08

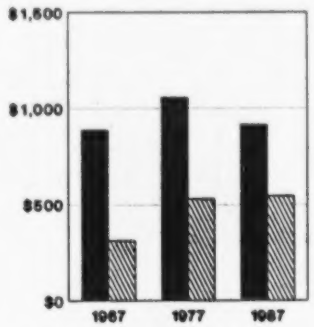
Interest

	1967	1977	1987
Alaska	$30	$134	$302
US Average	$19	$38	$100
Ratio	1.61	3.49	3.01

General Sales Tax

	1967	1977	1987
Alaska	$0	$0	$0
US Average	$195	$341	$423
Ratio	0.00	0.00	0.00

Federal Transfers

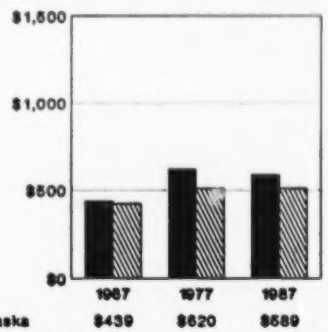


	1967	1977	1987
Alaska	$886	$1,056	$913
US Average	$313	$528	$543
Ratio	2.83	2.00	1.68

Resource Taxes [b]

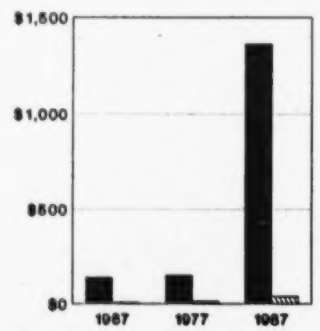
	1967	1977	1987
Alaska	$70	$652	$1,721
US Average	$13	$24	$21
Ratio	5.38	27.17	81.95

Other Taxes, Charges and Miscellaneous



	1967	1977	1987
Alaska	$439	$620	$589
US Average	$425	$513	$513
Ratio	1.03	1.21	1.15

Resource Ownership Revenues



	1967	1977	1987
Alaska	$137	$148	$1,360
US Average	$7	$11	$38
Ratio	19.57	13.45	35.79

Alaska US Average

Note: U.S. averages are inflated by Alaska COLA.

[a] Excludes petroleum corporate income tax.

[b] Includes petroleum corporate income tax and property tax.

The Alaska Cost-Of-Living Adjustment

All our numbers are in 1988 dollars, except as noted. That adjustment eliminates the effects of inflation so we can assess real changes in taxes collected over time.

Also, in Figures 4, 5, and 6 we've added an Alaska cost-of-living adjustment (COLA) to the U.S. average numbers, which takes into account Alaska's higher living costs and shows what the U.S. averages would be at Alaska prices.

Our cost-of-living adjustment takes into account both the higher cost of living in Anchorage relative to the U.S. average, and the higher cost of living in other Alaska regions relative to Anchorage. The 1988 COLA is based on a 15 percent differential between Anchorage and U.S. average prices, multiplied by another differential between Anchorage and other Alaska prices. The differential is 8 percent for state government revenues and 11 percent for local government revenues, reflecting a greater concentration of state government activity in lower cost areas like Anchorage and Juneau and more local government activity in higher cost areas. So, a commodity that costs $1.00 in the U.S. as a whole will cost $1.24 in a typical location of state government and $1.27 in a typical local government area. We calculated the Anchorage-U.S. differential with U.S. Bureau of Labor Statistics information. Our calculation of the differential between Anchorage and the rest of the state is based on the regional cost-of-living indexes reported in the *Alaska Geographic Differential Study* (prepared for the Alaska Department of Administration in 1985 by The McDowell Group), weighted by the proportions of state and local government employment in each region.

Income Tax: Until 1980, Alaska had both a personal and a corporate income tax; the personal income tax was eliminated in 1980. Alaska's per capita income taxes were high as compared with the national average – 70 percent higher in 1967 and two and a half times as high in 1977, when non-residents working on the trans-Alaska pipeline paid substantial Alaska income taxes. The income tax was high in part because it was tied to the federal income tax – which at that time taxed higher incomes at much higher rates than is true today. Also, Alaska has historically had a large number of seasonal, non-resident workers who paid state income taxes.

Across the country 40 states tax personal income and 3 more states tax a portion of personal income. The income tax rates start as low as 1 percent and range as high as 12 percent on higher incomes. Alaska and 45 other states tax corporate income, at rates also ranging from 1 to 12 percent of net income.

Federal Transfers: Alaska's per capita federal transfers have always been higher than average – because of minimum entitlements for some programs, substantial grants for highways, and shared revenues from federal lands. In sharing revenues from federal lands, Congress recognized that high federal land ownership in Alaska and other western states reduces the states' tax capacity.

But the difference between per capita transfers to Alaska and to other states narrowed a great deal over the past 20 years. In 1967 (a year when federal highway grants were high), Alaska's per capita federal money was nearly three times the national average; by 1987 it was just 68 percent above the national average.

Other Taxes, Charges, and Miscellaneous Revenues: This category includes selective sales taxes, user fees, and other kinds of charges for state services. Alaska has always collected somewhat more than the national average per capita in such revenues. The state government here provides a number of services other states don't, and pays for them partly through user charges. Alaska's state ferry system is a good example. Since different states provide different services, the comparative per capita level of these kinds of charges is not particularly meaningful as a measure of relative burdens.

Interest: Alaska's per capita interest on the general fund balance has always been somewhat higher than the national average. Alaska's general fund is bigger (per capita) than that of other states, and a bigger balance earns more interest.

General Sales Tax: Alaska's state government has never imposed a general sales tax. Nationwide, 45 state governments have sales taxes, with rates varying from 3 to 7.5 percent. State sales tax burdens nationwide have roughly doubled in the past 20 years – moving from about $200 per capita to more than $400 per capita (in 1988 dollars, with an Alaska cost-of-living adjustment).

Resource Taxes: We would expect Alaska's per capita severance taxes to be higher than the national average, because Alaska is a resource-rich state with a small population. And we would expect the national average severance tax per capita to be low, because the relative value of resource

production in most states is low as compared with Alaska's. Alaska has many natural resources but less industrial infrastructure than most states. More industrialized states, by contrast, have factories and other business property in their tax bases.

Even in the 1960s, when Alaska's only oil production was in the Cook Inlet area, state severance taxes here were considerably higher than the national average. In 1987 severance taxes in Alaska were about $1,700 per capita, as compared with about $20 nationwide.

Resource Ownership Revenues: This category includes royalties, rents, and bonuses Alaska receives because it owns resources under terms of the statehood act. Almost all of these revenues are from petroleum, but small amounts are also from timber and land sales. Alaska per capita ownership revenues in 1987 (a year of low oil prices) were about $1,400, as compared with about $40 nationally.

Local Government Comparisons

Figure 5 compares revenues collected by Alaska's local governments and local governments around the country in 1967, 1977, and 1987. Again, the comparisons are in per capita 1988 dollars, with the U.S. figures inflated by an Alaska cost-of-living adjustment.

State Transfers: State transfers have always made up a substantial share of revenues for Alaska's local governments. But in the 1960s, when the state government had just a modest income, per capita state aid to local governments in Alaska was only about half the national average. In 1977 state aid to Alaska local governments was a bit above the national average. By 1987, local governments in Alaska received nearly twice the state aid that other local governments in the U.S. did.

Property Taxes: Alaska's per capita property taxes were below the national average in the 1960s and 1970s, and are still about 20 percent below the national average today, if we exclude taxes the North Slope Borough collects on petroleum property. Although several local governments in Alaska collect taxes on petroleum property, only the North Slope Borough has the combination of small population, high mill rates, and extremely valuable petroleum property that would distort the per capita comparisons in Figure 5. Part of the reason Alaska's per capita collections are lower than the average is that mill rates are lower, but the small or non-existent tax bases in certain areas of Alaska also bring down the per capita average.

Charges and Miscellaneous Revenues: Because the services local governments pay for with user fees vary substantially around the country, per capita user fees don't reflect relative tax burdens. The miscellaneous revenues in Figure 5 include charges and user fees of various kinds; these kinds of charges went up much faster in Alaska than in other states in the 1980s. In 1987 local governments in Alaska collected about 50 percent more per capita in miscellaneous revenues than did local governments elsewhere.

Federal Transfers: There's no clear pattern in federal transfers to Alaska local governments as compared with the national average; in 1967 and 1977 Alaska governments got less than the national average and in 1987 somewhat more. Because federal transfers to local governments are relatively small, transfer levels from year to year may vary substantially.

Other Taxes: This category includes mainly sales taxes, but in several states also income taxes. Local governments in 29 states impose general sales taxes, and in 11 states local jurisdictions levy income taxes. Selective sales taxes are also common at the local level.

Per capita sales taxes levied by Alaska governments have always been below the national average, but the gap widened over the past 20 years. In 1987 per capita sales and other taxes nationally were about 35 percent higher than in Alaska – while in 1967 the difference was around 20 percent.

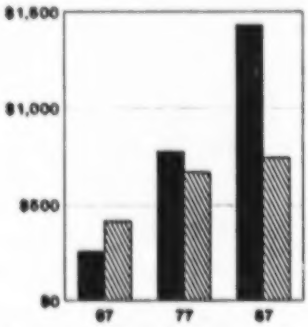
Interest: Alaska's local governments didn't have big enough fund balances to earn much interest in the 1960s. They did better – slightly above the national average – in the 1970s. But in 1987 per capita interest collected by local governments in Alaska was three times the national average. Part of the reason interest was high in the mid-1980s was that many municipalities were collecting earnings on unspent capital grants and other cash balances.

Combined State and Local Taxes on Individuals and Businesses

Figures 4 and 5 show that petroleum taxes lightened the tax burden on individuals and businesses in Alaska in the 1980s. To make that change

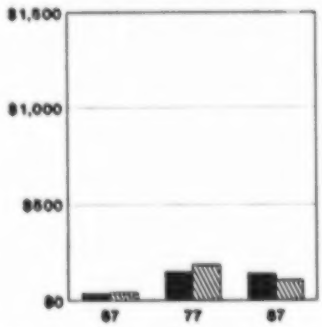
Figure 5. Local Government Revenue Per Capita
Alaska and U.S. Average
(In 1988 Dollars)

State Transfers



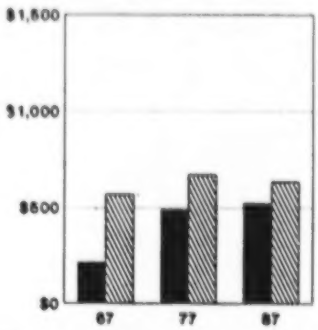
	67	77	87
Alaska	$268	$778	$1,429
US Average	$416	$871	$746
Ratio	0.62	1.16	1.92

Federal Transfers



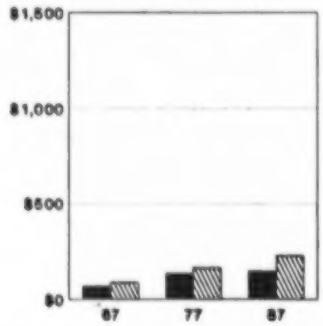
	67	77	87
Alaska	$53	$147	$140
US Average	$59	$185	$106
Ratio	0.89	0.79	1.31

Property Tax*



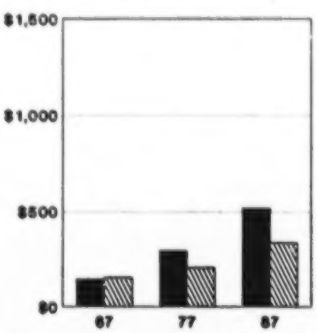
	67	77	87
Alaska	$215	$488	$520
US Average	$567	$671	$635
Ratio	0.38	0.73	0.82

Other Taxes



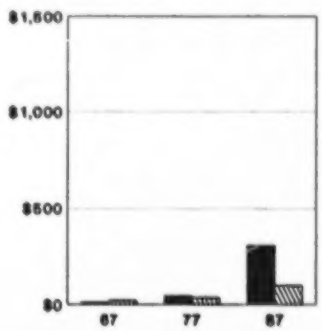
	67	77	87
Alaska	$66	$132	$143
US Average	$87	$162	$226
Ratio	0.76	0.82	0.63

Charges and Miscellaneous



	67	77	87
Alaska	$145	$294	$516
US Average	$152	$208	$337
Ratio	0.96	1.41	1.53

Interest

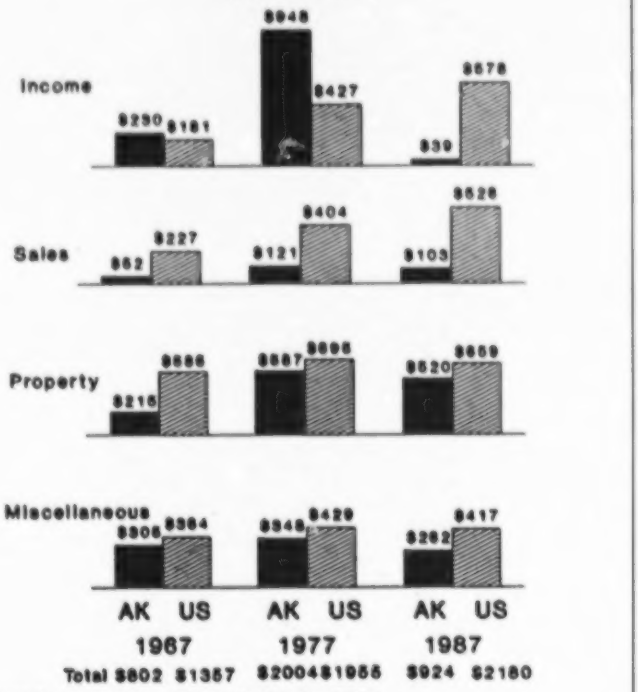


	67	77	87
Alaska	$13	$46	$306
US Average	$21	$37	$98
Ratio	0.63	1.26	3.10

*Excludes North Slope Borough oil property tax revenues.
Note: U.S. averages are inflated by Alaska COLA.

Alaska US Average

Figure 6. Combined State and Local Taxes per Capita Excluding Resource Taxes* Alaska and U.S. Average
(In 1988 Dollars)



Note: U.S. averages are inflated by Alaska COLA.
*Excludes petroleum corporate income, state property and severance taxes; fisheries taxes; and North Slope Borough oil property taxes.

more clear, in Figure 6 we combine state and local taxes paid by individuals and businesses and exclude resource industry taxes (which we examine separately below). We also exclude user fees and charges, because services provided vary from state to state. Again, the figures here are in 1988 dollars, and the U.S. figures have been inflated by an Alaska cost-of-living adjustment, so we're looking at equivalent buying power across the years and between Alaska and other states.

Figure 6 shows that per capita individual and business taxes in Alaska were lower than the national average in 1967 and 1987. In 1987, the most recent year for which we have figures, per capita state and local taxes nationwide were about $2,200, as compared with less than half that amount – about $900 per capita – in Alaska.

In 1977, however, Alaska per capita taxes were slightly higher than the national average. That happened in part because non-residents working in Alaska paid substantial state income taxes that year.

Sales, property, and other taxes per capita have historically been lower in Alaska. Income taxes were considerably higher than the national average before the personal income tax was repealed in 1980 – and that repeal accounts for the drop in total Alaska taxes between 1977 and 1987.

Looking for Money: Potential Revenues

State and local officials will have to fill the pending fiscal gap by cutting their budgets and finding new sources of revenues. We don't know yet how much of each they'll try to do, or when, but in this section we look at how much new revenue they might be able to realize.

State revenues increase for two reasons. New or expanded development can increase the tax base. If the government taxes that expanded base, revenues will increase. Or the government can increase taxes – by adding new taxes, raising existing tax rates, or taxing parts of the base that haven't been taxed before. A third but smaller potential source of new revenues is state assets not currently managed to maximize general revenues. Finally, four other factors that are not entirely predictable right now could ease the future fiscal crisis, if they were higher than we anticipate: settlement payments from litigation; earnings of the Permanent Fund; oil prices; and federal aid. Unfortunately, these factors could also worsen the crisis, if they were lower than we anticipate. Below we'll first briefly discuss those four variable factors, then broadly assess the potential for state assets to generate revenues. Then we'll look at potential revenues from higher taxes and new development.

Up or Down Factors

Settlement Payments: In the last four years the state received between $71 million and $419 million annually ($227 million average) in settlements of disputes with oil companies and the federal government. Over the next decade the state expects to collect a substantial portion of the more than $5 billion currently in dispute. The amount and timing of future payments is extremely uncertain. Our revenue projections (shown in Figure 1) assume that the state will receive $1.7

billion (in 1988 dollars) over the next 10 years. If those payments turn out to be larger or we receive them sooner than we assume, the budget crisis would be eased – but if for some reason the payments are smaller or we receive them later, the fiscal gap would be wider.

Permanent Fund Earnings: Our projections assume real (adjusted for inflation) earnings of the fund will average 3 percent annually over the next 20 years, which is consistent with the target of the Permanent Fund Corporation. So far the fund has enjoyed an average real return of 5 percent a year, but earnings in individual years have ranged from zero to 11 percent.

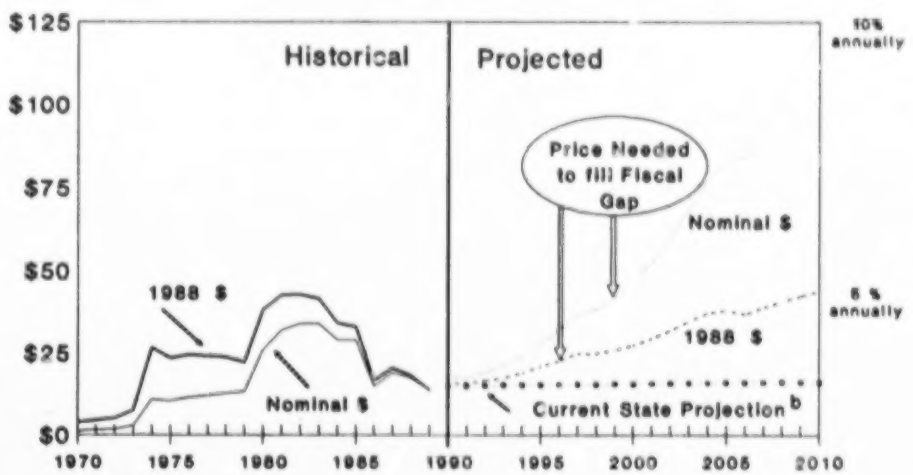
Oil Price: Our projections assume a constant real (adjusted for inflation) price of $15 a barrel for North Slope crude delivered to the U.S. Gulf Coast, which is approximately equal to the official State of Alaska estimate. Oil prices in 1989 were extremely volatile, ranging from $12 to $20 per barrel.

Oil production levels are more predictable than prices. North Slope production has already started to decline, and will continue to do so over the next 20 years. To compensate for falling production between now and 2010, the nominal oil price (before subtracting inflation) would have to rise 10 percent a year and the real price (in 1988 dollars) 5 percent annually. (See Figure 7.) Oil would have to sell for $47 a barrel in 2000 and $122 a barrel in 2010 – or, in 1988 dollars, $27 a barrel in 2000 and $44 a barrel in 2010.

Federal Government: Before the days of high petroleum revenues, Alaska relied heavily on federal aid. Some Alaskans see increased federal aid in Alaska as a means of easing the coming state fiscal crisis. But given the federal government's own large budget deficit and the trend toward less federal assistance nationwide, it seems unlikely that Alaska could increase its share of aid. Even maintaining current levels in such programs as highway assistance or keeping our current share of federal resource royalties will be difficult. In our projections we assume little future change in federal aid; if in fact federal aid declined substantially, the state budget would be under more pressure.

The federal government could, however, improve the state's revenue picture by lifting the ban on the export of North Slope crude oil and repealing the Jones Act, which requires cargoes being shipped between U.S. ports to be carried in American ships. Those changes in federal law – which are not under active consideration – would increase the wellhead value (the market value minus transportation costs) of North Slope oil by $2 to $4 per barrel, thus increasing both the state's tax base and its owner interests in oil.

Figure 7. World Oil Price [a]
Historical and Projected
(Dollars per Barrel)



[a] Saudi Light at Ras Tanura
[b] Alaska Department of Revenue, Fall 1989 middle case projection, in 1988 $.

Using State Assets

The Permanent Fund is only the largest of a number of state assets that potentially could produce annual revenues to support government services. The state currently reports $3.1 billion of equity in public corporations and state enterprise funds. The biggest of these by far is the Alaska Housing Finance Corporation. Others include the Alaska Railroad Corporation, the Alaska Industrial Development and Export Authority, the Commercial Fisheries Revolving Loan Fund, the Power Development Fund, the Student Loan Corporation, the International Airport Fund, the Agricultural Loan Fund, and the Housing Assistance Fund.

Right now the income produced by those assets is largely earmarked for continuation of specific programs. Many of these assets earn below-market rates of return, because they are intended primarily to create non-monetary benefits—such as lowering the cost of doing business, expanding the economic base, and better educating Alaska's work force. Although we are not advocating such a policy, the state could sell these assets and invest the proceeds in ways that would maximize returns to the state. Before doing so, the state would need to determine what benefits would be lost.

The potential sustainable income from sale of these assets is difficult to predict, because their market value may differ from values reported in state financial documents. But it's unlikely that it would exceed $100 million annually. Less radical shifts in management of these public corporations and enterprise funds could, however, divert a portion of the income from their activities to the general fund.

Taxes: How High?

Types and rates of state and local taxes vary a great deal around the country. Every state makes political decisions about the benefits of government spending versus the loss in private purchasing power and economic disincentives created by taxes. But to make some assessments of Alaska's ability to generate taxes as compared with current tax collections we need some standard measure of comparison.

We estimate how much more tax Alaska might be able to generate by applying the average tax rates among state and local governments nationwide to Alaska's tax bases. (See the box on page 14.) Calculating the difference between what Alaska now collects and what it could collect at national average tax rates gives us an estimate of potential new tax revenues. Notice that we are using *national average rates* as a measure of comparison: the potential tax revenues we discuss below are representative rates and not maximums. A number of states of course have taxes substantially above the average, just as others are below.

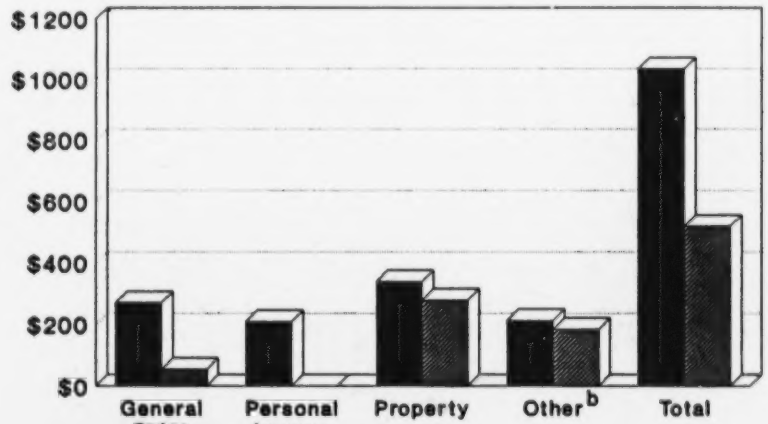
We're not advocating that the state and local governments here suddenly raise tax rates to national averages. Changes in Alaska's tax scheme in the coming years will depend on political realities at the state and local levels and must be tailored to specific Alaska conditions. National averages simply serve as a benchmark to give Alaskans an estimate of how much of the fiscal gap taxes could fill, if state and local governments here raised taxes to those averages.

In making these estimates we did not explicitly consider how increased tax rates might shrink the tax base or how restructuring of the tax schedule might make the burden more equitable. Also absent from our estimate is any consideration of current tax evasion and foregone revenues from tax credits. Notwithstanding these tax issues we didn't examine, we are confident that our estimates provide a good overall picture of potential revenues from taxes.

Individual and Business Taxes: Figure 8 shows that individual Alaskans and businesses (excluding resource production) pay about half the national average in overall state and local taxes. (The black bars show how high Alaska taxes would be at national average rates, and the striped bars show actual tax payments.) However, the figure also reveals wide differences among the various types of taxes. Property taxes and those in the "other" category, which includes selective sales taxes and non-petroleum corporate income taxes, approach the national tax averages. In contrast, general sales taxes in Alaska are only about one-fifth the national average, mainly because we have no state general sales tax. Most apparent is Alaska's lack of a personal income tax at either the state or local level.

Altogether, imposing state sales and income taxes at national averages and increasing property and local sales taxes to national averages would generate about $515 million for state and local governments each year. That would virtually

Figure 8. Alaska State and Local Taxes Paid by Individuals and Businesses Actual and at Estimated U.S. Average Rates[a]
(In Millions of 1988 Dollars)



	General Sales	Personal Income	Property	Other[b]	Total
At US Avgs	$271	$210	$340	$214	$1035
Actual	$55	$0	$280	$185	$520
Difference	$216	$210	$60	$29	$515

[a] Based on 1985 tax base calculations. Excludes taxes paid by petroleum and other resource producers.
[b] Other taxes include selective sales taxes and non-petroleum corporate income tax.

double current tax collections. (We don't include charges and user fees here because those kinds of charges support different services in different locations, making comparisons meaningless. Also excluded are the potential net proceeds of a state lottery, which we estimate could be $10 million annually.)

Resource Production Revenues: Alaska collects both taxes on and ownership payments from resource extraction. In this section we compare the rate of taxation of the resource base across states and specifically exclude ownership payments. Our estimates are necessarily rough approximations, given the difficulties in valuing each resource base.

Figure 9 compares tax rates on resource industries in Alaska and nationwide in 1987 (the most recent year for which we have figures) by showing the approximate percentage of their value added (the industry contribution to gross national product) paid in taxes, excluding income taxes. (The box on page 14 provides further discussion of our tax base calculations.)

Figure 9 shows that some resources are taxed at much higher rates than others nationwide. For instance, mining (which is primarily coal mining) nationally paid about 14 percent of its value added in taxes in 1987. The oil and gas industry paid the next highest rate nationally, or about 12 percent of its value added. The other industries paid in the neighborhood of 4 to 5 percent of their value added in taxes nationally.

In Alaska, petroleum, far and away our most important resource, paid just about the same percentage of its Alaska value added in taxes as it did nationally – about 12 percent. (The Alaska Legislature in 1989 changed the formula for calculating severance taxes on petroleum – the Economic Limit Factor, or ELF. Although the change increased 1989 tax collections by about $150 million over what they would have been, the legislature essentially restored 1989 tax rates to their 1987 levels. So the tax percentage we show is still a valid approximation.)

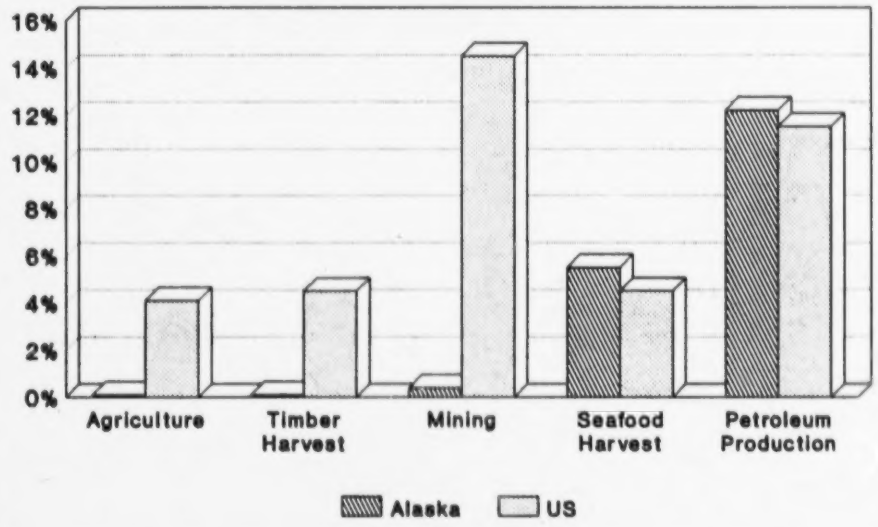
Alaska's next most important resource, commercial fishing, also was taxed roughly as much in Alaska as nationally in 1987 – around 5 percent of its value added. Other resource industries in Alaska paid little tax. Mining in Alaska paid less than 1 percent of its value added in taxes in 1987, as compared with 14 percent nationally. Agriculture and forestry in Alaska paid much less than 1 percent in taxes, as compared with about 4 percent nationally. (We weren't able to make comparisons for tourism because of the difficulties in identifying taxes paid and tax base.)

Figure 10 shows actual taxes paid by Alaska's resource industries in the late 1980s and estimates of what taxes would be at U.S. average rates. Modest changes in the national rates have an insignificant effect on collections, except of course for petroleum.

At national average rates, the petroleum industry in Alaska would pay about $1.2 billion in taxes. (We make that estimate by applying the national average rate for petroleum in Figure 9 to the industry's Alaska tax base). The seafood harvesting industry would pay about $31 million at the national average rate for that industry.

The severance tax, property tax, and special income tax on petroleum, and the raw fish tax, are the primary resource taxes in Alaska. Resource taxes collected from these industries in Alaska are consistent with national rates.

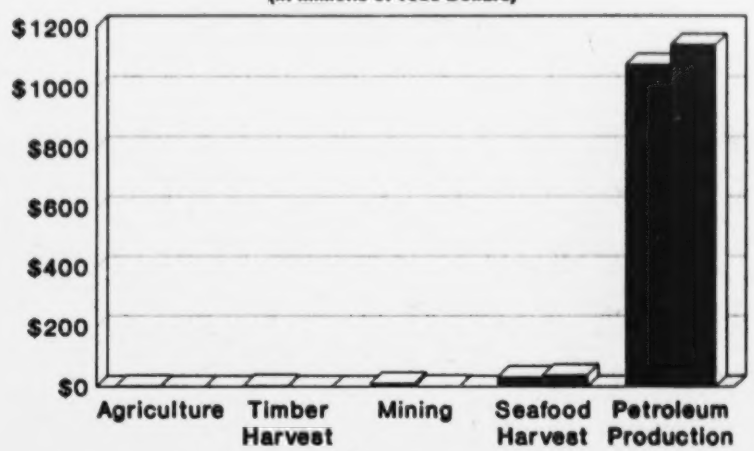
Figure 9. Alaska and U.S. Resource Industries Taxes as Percent of Value Added (1987)



Alaska's mining, timber harvesting, and agriculture industries have much smaller tax bases than petroleum and fishing, and those smaller tax bases are taxed at rates considerably below the national averages. Alaska has no production tax on timber harvesting. Instead of a production tax on mineral extraction, Alaska has a mining license tax on net operating income. Were these industries to pay taxes at national average rates, the state would collect (at current production levels) approximately $10 million more annually.

As an owner of resources (as distinct from a tax collector), Alaska receives considerable revenues—again, mostly from the sale of oil and gas, but also smaller amounts from timber, minerals, and land sales. These payments to the state are

Figure 10. Alaska State and Local Taxes Paid by Resource Production Industries Actual and at Estimated U.S. Average Rates
(In Millions of 1988 Dollars)



Note: Excludes revenue from ownership of resources.

Estimating Alaska Taxes and U.S. Average Rates

To calculate taxes Alaska's state and local governments collect as well as average collections of other state and local governments we use the U.S. Department of Commerce's *Governmental Finances,* unpublished data from the U.S. Bureau of Economic Analysis, and ISER's MAP database.

To estimate revenues Alaska's state and local governments might collect from tax changes we apply *national average tax rates* to Alaska's tax bases. This measure of tax potential does not reflect some preferred amount of taxes, or the maximum amount, or the level taxes could reach before they began to create economic disincentives. Rather it's a standard for comparing Alaska's tax effort with that of other states, taking into account the tax bases of each state as well as taxes collected.

We derive our estimates of additional tax potential using published and unpublished data from the U.S. Department of Commerce, the ISER MAP database, the Advisory Council on Intergovernmental Relations (ACIR), and the research agency of the Alaska House of Representatives.

At the heart of our estimates of tax potential are of course estimates of Alaska's tax bases. In our analysis we use one set of tax bases for individual and business taxes and another for resource industry taxes. (We exclude resource ownership revenues since they are generally paid to private owners).

Individual and Business Taxes: Our calculations of Alaska's bases for individual and business taxes are modifications of ACIR estimates, and reflect the specific base for each tax, such as retail sales, property values, corporate income, or gasoline consumption. We then apply national average tax rates to each tax base.

Resource Industry Taxes: For the tax bases of resource industries we use the amount of value each industry contributes to the gross national product—what economists call "value added". Value added consists of wages, depreciation, rents, interest, and payments to other factors that add value to production, as well as profits received and taxes paid. The national average tax rate for each industry is the ratio of all taxes paid (except income taxes) to value added as reported by the U.S. Department of Commerce. We estimate the additional tax potential of Alaska resource industries by applying the national average rate to the Alaska value added of each industry, based on ISER calculations. So, for example, if an industry pays 5 percent of its value added in taxes nationally while in Alaska it pays 3 percent, Alaska governments could collect 2 percent more of the industry's value added in taxes to reach the national average.

Our method of measuring the resource tax base is not meant to serve as a guide to the appropriate level of taxation of any resource. Such a determination would require a much more detailed analysis that is beyond the scope of this paper.

similar to those private owners of resources would require from developers. Only petroleum royalties, which came close to $1 billion in fiscal 1988, are large enough to supply a significant share of the state's budget needs. In contrast, the state gets no ownership return from the commercial fisheries. The market value of ownership of that resource is reflected in the value of limited entry permits for the fisheries, which exceeds $1 billion. If the state taxed the value of those permits, which are a form of property, at the same rate as oil property, it could collect about $20 million annually.

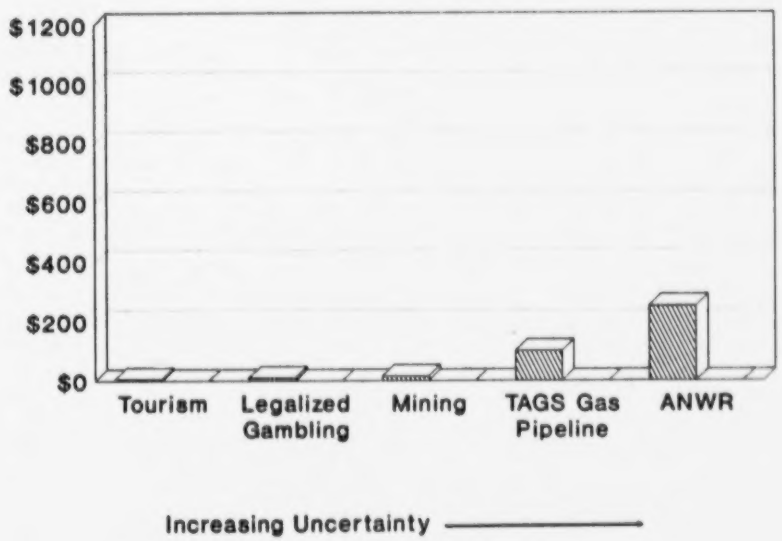
Economic Development

Economic development—both expansion of existing activities and new developments—has the potential to generate revenues to help fill the state fiscal gap as well as create jobs and income for Alaskans. For example, in our analysis of the fiscal gap, we assume the state will collect petroleum revenues from production greater than the current official estimates, because of technological advances and further discoveries. Figure 11 shows some estimates of possible revenues from new or significantly expanded activities not already included in our projections because they are less certain. The less certain developments are further to the right in the figure. The estimates are intended to convey a sense of the order of magnitude of potential new revenues, not to serve as precise predictions.

Growth in the tourism industry in the next decade (with no changes in industry taxes) could add $5 million annually to the state treasury in fees and ownership payments as well as local property and sales taxes. Legalized gambling (not including a state lottery) could produce $5 to $10 million in state amusement and local property taxes. (We're not advocating that gambling be legalized; it's one of the possible revenue sources that have been discussed, so we include an estimate of its revenue potential.)

New mines could generate $15 million annually through license and income taxes and local

Figure 11. Possible Revenues from Expansion of Industry
(In Millions of 1988 Dollars)



property taxes (again, with no changes in existing tax laws). We will have better estimates of mining revenues over the next couple of years, as two big new mines begin producing.

These revenues would be divided between state and local governments, with local governments collecting property taxes and the state government collecting resource taxes. The revenue potential of these developments is somewhat restricted because Alaska has no personal income tax.

The developments that could produce the biggest revenues are petroleum-related but they are very uncertain right now. Two such developments (but by no means the only possible ones) would be construction of a gas pipeline to transport North Slope natural gas, and the discovery and development of large oil reserves in the Arctic National Wildlife Refuge east of Prudhoe Bay. In 2000 North Slope gas could be contributing about $100 million (in 1988 dollars) annually to the state treasury. However, the gas pipeline won't be built until the gas producers find buyers for North Slope gas.

A discovery in the wildlife refuge one-third the size of the Prudhoe Bay field could be generating $250 million (in 1988 dollars) in annual state revenues by 2005. (The estimated probability of a commercial discovery in the refuge is 19 percent.) The Arctic National Wildlife Refuge is not open to petroleum exploration right now and it's uncertain when it will be. Should Congress open the refuge, the oil companies would have to find commercial fields and undertake the development necessary to transport oil from the refuge before the state could realize a sustained flow of tax revenues.

In summary, if all the likely and less certain developments shown in Figure 11 were to occur, state and local governments might be collecting about $380 million (in 1988 dollars) in additional revenues by 2005.

Between a Rock and a Hard Place

None of us is eager to pay more taxes. Many Alaskans believe that a combination of higher oil prices, spending cuts, and new revenue sources will make it unnecessary to raise taxes as petroleum revenues drop. But because we are facing a $1 billion shortfall within the next 10 years, we regard that view as unrealistic. After all, $ 1 billion is three times more than all the individuals, businesses, and non-petroleum resource industries currently pay in state taxes every year.

It seems inevitable, given the small likelihood that resource development will raise enough revenues to fill the fiscal gap in the near future, that we'll have to fill some of that gap by raising taxes. Of course there are political and social as well as economic issues involved in raising taxes. In Fiscal Policy Paper #2 we outlined a number of reasons why cutting the budget would be tough. Some of the same factors, plus others, will make raising revenues as tough or tougher than cutting the budget:

1. Economic Disincentives: Alaska is an expensive place to do business, independent of state and local tax levels. Developers come to Alaska, or expand their operations here, only when the profits from development outweigh the costs. Although tax levels are of less significance to firms than are many other market factors, higher taxes are nevertheless a real addition to the cost of doing business, and raising taxes on businesses or individuals reduces Alaska's competitiveness in national and world markets.

2. Economic Climate: Alaska is still emerging from a severe recession that cost the state jobs and population, forced down property values, and pushed thousand of individuals and businesses into bankruptcy. Alaskans are understandably not receptive to tax increases – which will reduce income and employment in the private sector and, in the minds of many, slow the pace of economic activity.

3. Special Interests: For every tax paid or proposed there is a constituency with an economic interest in keeping rates low or non-existent. These interest groups are well-organized and well-financed to fight tax increases or new taxes.

4. Unwillingness to Pay: Alaskans have grown accustomed to low state and local taxes. Even though individual Alaskans carry the lightest state and local tax burden in the nation, many Alaskans believe they're already paying more than enough for government services.

5. Tax the Other Guy First: Just about everyone is convinced that he's already paying his fair share of taxes, and that if taxes have to be raised somebody else should pay. We have a natural tendency to try to devise taxes that would be paid by non-residents – but this method of "tax exporting" has its limits, and even non-residents can respond to the disincentives created by taxation by taking their business elsewhere.

Despite these arguments against taxes, in the typical state taxes and user fees paid by individuals and businesses necessarily represent the cost of public services the government provides. But in the past decade, when petroleum revenues paid for almost everything, Alaska lost the link between what residents pay in taxes and what they receive in services. When citizens aren't aware of the cost of services, public spending is no longer restrained by a sense of the value of services provided. To regain the balance between taxes and spending, citizens must gradually shoulder more of the cost of government. Higher taxes will quickly focus attention on those aspects of government spending that taxpayers feel aren't worth the price.

ISER Fiscal Policy Papers
Institute of Social and Economic Research
University of Alaska Anchorage
E. Lee Gorsuch, Director
3211 Providence Drive
Anchorage, Alaska 99508

Non-Profit Org.
U.S. Postage
PAID
Anchorage, Alaska
Permit No. 540